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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/808,443

03/25/2004

Chaoyu Yue

02495.000005.1

4868

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11/07/2005

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EXAMINER

PASCAL, LESLIE C

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,443

Applicant(s)

YUE ET AL.

Examiner

Leslie Pascal

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-66 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 47-66 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 47-55 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to the phrase, "wherein a saturation level of each optical amplifier is either substantially the same, or different, depending on the output power of each optical pump", it is unclear what the applicant is claiming. If the saturation level can be "different or the same", it would appear that anything would read on this. The only two choices are that they can be "different" or "the same". It is not clear what the applicant is claiming. In regard to claims 55 and 63, it is unclear what the applicant means by prevents lasing in an optical communication system. It would appear that there is "lasing" in the system by either the amplifiers or the pumps.

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in

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scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 47-66 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-5, 9, 34 and 36 of U.S. Patent No. 6735394. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent teaches each wavelength applied to amplifiers (lines 3-6 of claim 2), and selectively coupling the pumps to the amplifiers (lines 8-11 of claim 2) and that the amplifiers operate in a saturation mode (lines 12-13 of claim 2). Although he does not specify that the output power of a plurality of pumps is coupled to the amplifiers through the coupler, it appears obvious that this is the case since the pumps are coupled to "at least one" of the amplifiers. Claim 48 corresponds to claim 3 of the patent. Claim 50 corresponds to claim 5 of the patent. Claim 55 corresponds to claim 5 of the patent. In regard to claim 49, see claim 9 of the patent. In regard to claim 55, see claim 36 of the patent. In regard to claim 65, see claims 22 and 34 of the patent. In regard to the phrase, "wherein a saturation level of

each optical amplifier is either substantially the same, or different, depending on the output power of each optical pump”, it is unclear what the applicant is claiming. If the saturation level can be “different or the same”, it would appear that anything would read on this. The only two choices are that they can be different or the same. In regard to claims 59 and 64, it would appear that the benefit of operating in the saturation mode would increase the number of hops than when not operating in saturation mode since the signals are improved.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 47, 49, 51, 54-61 and 63-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowle et al (US006339495) in view of Giles (US005241414).

Cowle et al teach amplifying power level of plural channels through corresponding amplifiers (figure 2, 10) and controlling the power of each amplifier so that each amplifier operates in saturation mode. Giles teaches controlling the amplifiers with plural pump lasers through an MXN star coupler. Although Cowle does not teach specifics about his plural pump means and how they are coupled to the amplifiers, Giles teaches an MXN star coupler similar to the applicant’s “selective” MXN star means. It would have been obvious to use plural pump means with the MXN star of Giles to couple to plural amplifiers of Cowle in order to improve the reliability of the pump means

as taught by Giles et al. In regard to claim 54, see column 4, lines 60-65 in which he teaches that it is well known to use a cold spare would something happen to the pumps. In regard to claim 55, it would have been obvious to prevent a channel from exceeding a power in order so that it is not destructive to other signals. In regard to claims 59 and 64, it would appear that the benefit of operating in the saturation mode would increase the number of hops since the signals are improved.

7. Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cowles in view of Giles as applied to claim 60 above, and further in view of Arnold (6515777). Although Cowles does not teach specifics about his node, Arnold teaches an amplifier with plural wavelengths he teaches that it is well known to connect it to an ADM and OXC. It would have been obvious to connect the amplifier of Cowles through to and ADM and OXC as taught by Arnold in order to amplify and connect the signals to other nodes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Pascal whose telephone number is 571-272-3032. The examiner can normally be reached on Monday, Friday 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571-272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leslie Pascal
Primary Examiner
Art Unit 2633